

## **ABSTRACT**

**Title:** The use of biofeedback in physical therapy

**Objectives:** The aim of this thesis is to summarize the accessible literary sources mapping the area of use of biofeedback in physical therapy and forms of its use. Furthermore, it aims to make a research and evaluate the effect of biofeedback therapy of woman urinary incontinence and neurofeedback therapy with children with Attention Deficit Hyperactivity Disorder (ADHD syndrome).

**Methods:** This thesis is a descriptive analysis based on a literature review. The first part includes theoretical background dealing with the description, principle of operation and the possibilities of influence the therapy using biofeedback. The next chapter focuses on different areas of use of biofeedback in physical therapy and identifies the different forms of use. Subsequent research contains a presentation of studies, their comparison and critically evaluation of the effect of therapy using biofeedback for selected diagnoses.

**Results:** Based on 69 found studies were clearly mapped using various forms of biofeedback in physical therapy. From the research findings which involved a total of 24 studies with the corresponding criteria, it was found that the method of biofeedback has a positive effect on the treatment of urinary incontinence in women. However, compared with pelvic floor muscle exercise alone there wasn't a significant difference in treatment success. Furthermore neurofeedback was evaluated as an effective therapy in children with ADHD. This training has similar effects as pharmacological treatment is therefore also suitable for those who don't respond to standard pharmacological intervention or have undesirable side effects.

**Keywords:** biofeedback, biofeedback therapy, physiotherapy, urinary incontinence, ADHD, EEG neurofeedback